Docket Nos. 2015-1769, 15-1770, 15-1771

In the

United States Court of Appeals

for the

Federal Circuit

———◆———

INTELLECTUAL VENTURES I LLC,

Plaintiff-Appellant,

v.

SYMANTEC CORP.,

Defendant-Cross-Appellant

TREND MICRO INCORPORATED, TREND MICRO, INC. (USA),

Defendants-Appellees

———————————————

Appeals from the United States District Court for the District of Delaware, in Case Nos. 10-cv-1067 and 12-cv-1581 · Honorable Leonard P. Stark

BRIEF OF APPELLEES TREND MICRO INCORPORATED AND TREND MICRO, INC. (USA)

YAR R. CHAIKOVSKY
D. STUART BARTOW, ESQ.
BRYAN K. JAMES
PAUL HASTINGS LLP
1117 South California Avenue
Palo Alto, California 94304
(650) 320-1800 Telephone

BLAIR M. JACOBS, ESQ.
PAUL HASTINGS LLP
875 15th Street NW
Washington, D.C. 20005
(202) 551-1951 Telephone

October 5, 2015

Counsel for Appellees Trend Micro Incorporated and Trend Micro, Inc. (USA)

CERTIFICATE OF INTEREST

Counsel for Defendants-Appellees Trend Micro Incorporated and Trend

Micro, Inc. (USA) certify the following:

1. The full name of every party or amicus curiae represented by me is:

   Trend Micro Incorporated
   Trend Micro, Inc. (USA)

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

   N/A.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

   Trend Micro, Inc. (USA) is a wholly-owned subsidiary of Trend Micro Incorporated. Trend Micro Incorporated has no patent corporation. No publicly held corporation owns 10% or more of the stock of Trend Micro Incorporated.

4. The names of all law firms and the partners or associates that appeared for the party or amicus curiae now represented by me in the trial court or agency or are expected to appear in this court are:

   Paul Hastings LLP: Yar R. Chaikovsky, D. Stuart Bartow, Bryan James, Bruce Yen, Blair Jacobs, Donald Morrow, Allan Soobert, Soyoung Jung, Sophie Sung

   McDermott Will & Emery LLP: Christopher Bright, David Larson, Michael Martin, David Beckwith, Daniel Greene

   Morris, Nichols, Arsht & Tunnell LLP: Karen Jacobs, Michael Flynn, Richard John Bauer

Dated: October 5, 2015   By: */s/ Yar R. Chaikovsky*
                                         Yar R. Chaikovsky

                                         Paul Hastings LLP
                                         1117 S. California Avenue
                                         Palo Alto, CA 94304-1106
                                         1(650) 320-1800

                                         Counsel for Defendants-Appellees
                                         Trend Micro Incorporated and
                                         Trend Micro, Inc. (USA)

TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

Cases

TABLE OF ABBREVIATIONS AND CONVENTIONS

Abbreviations

IV	Plaintiff-Appellant Intellectual Ventures, I LLC
Symantec	Defendant-Cross-appellant Symantec Corporation
Trend Micro	Defendants-Appellees Trend Micro Incorporated and Trend Micro, Inc. (USA)
OB	IV's Opening Brief
JA___	joint appendix page
PTO	United States Patent and Trademark Office
'050 patent	U.S. Patent No. 6,460,050
'142 patent	U.S. Patent No. 6,073,142
'610 patent	U.S. Patent No. 5,987,610

Conventions

All emphasis in quotations added except where specified

Internal citations omitted except where specified

xx:yy-zz	Column xx, lines yy to zz

STATEMENT OF RELATED CASES

These consolidated appeals are related to appeals Nos. 15-1677 and 15-1678. Those appeals were dismissed as premature before Appellant Intellectual Ventures ("IV") was due to file its principal brief.

The Court's decision in the present appeals may affect post-trial proceedings in one of the underlying district court actions, *Intellectual Ventures I, LLC v. Symantec Corp.*, No. 10-cv-1067 (D. Del.). The Court's decision may also affect PTO Reexam Control No. 95/002,202, currently pending before the PTO's Patent Trial and Appeal Board. In that *inter partes* reexamination proceeding, the Central Reexamination Unit of the PTO finally rejected, on the basis of anticipation by prior art, all claims of one of the patents at issue in this appeal (the '050 patent).

Other than the proceedings described above, counsel is unaware of any other case pending in this or any other court that will directly affect or be directly affected by this court's decision in the pending appeal.

STATEMENT OF JURISDICTION

Trend Micro agrees with IV's Statement of Jurisdiction that this Court has jurisdiction over these appeals pursuant to 28 U.S.C. § 1295(a)(1).

STATEMENT OF THE ISSUES

1.   Whether the district court properly held that claims 9, 13, 16, 22, and 24 of the '050 patent are invalid for claiming patent-ineligible subject matter under 35 U.S.C. § 101 because, under the analysis set forth by the Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), these claims are directed to the abstract idea of receiving identifying information, comparing it to other information, and outputting an indication based on the identifying information, and, at most, limit that abstract idea to a computer environment without adding any inventive features.

2.   Whether the district court properly held that claims 1, 7, 17, 21, 22, 24, and 26 of the '142 patent are invalid for claiming patent-ineligible subject matter under 35 U.S.C. § 101 because they are directed to the abstract idea of intercepting and deferring delivery of messages, and, at most, limit that abstract idea to a computer environment without adding any inventive features.

INTRODUCTION

In the underlying actions, IV sued Trend Micro, Symantec, and two other leading companies in the security software industry. IV chose to assert four patents it had acquired as part of assembling an industry-wide licensing and enforcement campaign. IV dropped one of the patents asserted against Trend Micro after claim construction. It dropped another patent asserted against Trend Micro during briefing on Trend Micro's motion for judgment of invalidity, the outcome of which is at issue in this appeal. Then, in April 2015, four-and-a-half years into the litigation, the district court, having had an opportunity to hear two weeks' worth of trial evidence during IV's trial against Symantec, held that the two remaining patents in the case against Trend Micro—the '050 patent and the '142 patent—failed to meet the requirements for subject matter eligibility under 35 U.S.C. § 101. JA3.

IV now asks this Court to overturn the district court's judgment, but under the precedent of the Supreme Court and this Court, the outcome should be clear: the asserted claims of the '050 and '142 patents are ineligible for patent protection. The claims at issue here are directed to abstract ideas—indeed, long-standing and fundamental human practices—implemented using conventional, generic computer-related features. By sheer application of the "draftsman's art," *see Alice*, 134 S. Ct. at 2359, the patentees obtained patent claims that unduly preempt the

practice of the abstract idea itself. This is contrary to established § 101 law and the policy considerations that undergird its application.

Trend Micro respectfully submits that this Court should reject IV's arguments on appeal, all of which are substantially flawed in light of the precedent of the Supreme Court and this Court. The judgment of the district court should be affirmed.

STATEMENT OF THE CASE

I.   THE PATENTS-IN-SUIT

A.   The '050 Patent

The '050 patent, entitled "Distributed Content Identification System," was filed on December 22, 1999, and is directed to methods for "identifying a characteristic of a data file." JA242 at Abstract. In the words of the specification, "the invention, roughly described, is a file content classification system." JA245 at 2:23-24. The basic concept behind the claims, as held by the district court, is "receiving identifying information, comparing it to other information, and outputting an indication based on the identifying information." JA21.

All the asserted claims of the '050 patent are drafted such that the claimed method steps (*e.g.*, receiving, determining, outputting) are performed by a computer, which is depicted by the red box on the right-hand side of Figure 2, below:
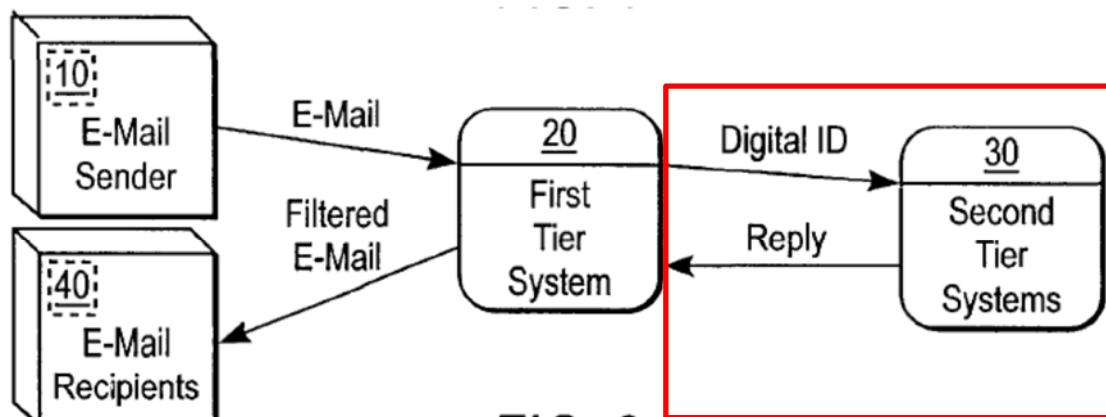
FIG. 2

JA253 (emphasis supplied).

The items in the red box have been excerpted below for clarity:
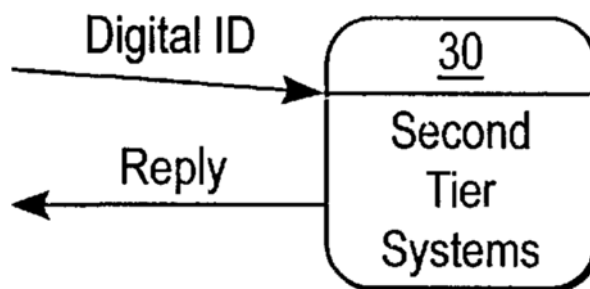
Briefly, identifiers for files ("Digital IDs") are received at a generic

computer ("Second Tier Systems 30"). Once received, each incoming identifier is

matched against other identifiers to ascertain something about (*i.e.*, a characteristic

of) the file the identifier represents. Based on the result of the matching step, the

computer outputs a "Reply" providing an indication relating to the file.

IV asserted claims 9, 13, 16, 22 and 24 against Trend Micro. Claim 9,

which all parties (including IV) agree is representative for purposes of the § 101

analysis (*see* OB at 8), recites:

> 9.   A method for identifying characteristics of data files, comprising:
>
> receiving, on a processing system, file content identifiers for data files from a plurality of file content identifier agents, each agent provided on a source system and creating file content IDs using a mathematical algorithm, via a network,
>
> determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers; and
>
> outputting, to at least one of the source systems responsive to a request from said source system, an indication of the characteristic of the data file based on said step of determining.

JA248.

Claim 9 represents a generic computer implementation of steps reflected in

well-known human activities. As the district court agreed, such activities might

include, for example, using a car's license plate to identify a characteristic of the

car, such as whether the car has been reported stolen or how many parking tickets

are attributed to the car:

Limitations of '050 Patent Claim 9	Routine Steps Performed when Looking for Stolen Cars	Routine Steps Performed to Determine Number of Unpaid Tickets Associated with Car
"receiving, on a processing system, file content identifiers for data files from a plurality of file content identifier generator agents, each agent provided on a source system and creating file content IDs using a mathematical algorithm, via a network"	Jones, a dispatch officer, receives a call from Smith, one of several officers patrolling for stolen cars, asking whether a car with license plate number "24680" has been reported stolen.	A parking enforcement dispatcher in Wilmington receives a radio call from one of several parking enforcement officers, asking about an illegally-parked car with license plate number "12345."
"determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers"	Jones looks at a list of cars reported stolen to the police, generated by all patrol officers, and finds that a car with license plate number "24680" has been reported as stolen.	The dispatcher looks down a list of license plate numbers having unpaid tickets, generated from all the city enforcement officers, and finds that four unpaid tickets show up for the entry "12345."
"outputting, to at least one of the source systems responsive to a request from said source system, an indication of the characteristic of the data file based on said step of determining."	Jones tells Smith that the license plate number "24680" indicates that car has been reported stolen.	The dispatcher replies, "that vehicle has four outstanding tickets."

JA21.

Dependent claims 13 and 24 further constrain the practice of these routine

steps to the technological environment of "spam" email identification. JA248 at

8:35-37; JA249 at 10:10-11. Contrary to what IV argues, the specification of the

'050 patent does not mention an alleged "protection gap" or a "volume problem."

See OB at 10.

The asserted claims of the '050 patent do not claim the use of any special

algorithm or any particular computer apparatus. To the contrary, the claims recite

only general-purpose computer hardware and software, identified at a high level of

abstraction in functional language, using terms like "processing system," "source

system," and "file content identifier generator agent."[1] In fact, the inventions can

be implemented readily without computers at all. The inventors confirmed in

sworn deposition testimony that: (i) a human could have "served in the place of

the computers" in the alleged invention; (ii) a human could perform every step of

the claimed methods; and (iii) their alleged invention did not require "a specific

device," "particular programming structure," "particular data structure," or

"particular machine" to operate. JA3424-30 (Talley Tr.); 3441-42 (Pace Tr.).

The inventors also confirmed that a human being could perform the claimed

steps using pencil and paper. *See* JA3441-42; JA3425. For example, named

inventor Brooks Cash Talley testified:

> Q.   Leaving aside the computers mentioned in claim nine,
> leaving those to one side, could the process described in claim

---

[1] According to IV and its expert, "agent" is just a generic term for software. *See, e.g.,* McDaniel Tr., JA818: "Q. . . . What is an agent? A: An agent, that is kind of technical-speak. It is a technical word for software. That is really all it is."

> nine in your view, be performed albeit slowly, by a person with pencil and paper?
>
> * * *
>
> A.   It could at small scales. At the type of scale that you see in email on the Internet, probably not.
>
> Q.   Okay. So on a small scale I could do claim nine with a pencil and paper, but if I wanted to do it in a practical commercial way I'd have to use computers to do it.
>
> A.   Yes.

JA3425 at 42:7-24.

In an *inter partes* reexamination currently pending in the PTO, all claims of the '050 patent asserted against Trend Micro in this litigation stand finally rejected as anticipated by prior art. JA3785-3833, esp. JA3786.[2]

B.   The '142 Patent

The '142 patent, entitled "Automated Post Office Based Rule Analysis of E-mail Messages and Other Data Objects for Controlled Distribution in Network Environments," was filed on June 23, 1997, and is directed to an apparatus and methods for "automatic deferral and review of e-mail messages and other data objects in a networked computer system." JA200 at Abstract.

The '142 patent specification observes that businesses employ methods to control the flow of printed messages and documents, often utilizing rules that are

---

[2] Proceedings are currently pending before the Patent Trial and Appeal Board.

typically "managed by the personnel, human resources, or other departments." JA225 at 1:31-34. The specification describes applying the same solution for electronic mail that was already well-known and conventional for printed messages: applying "business rules" to control distribution and delivery of electronic messages within the organization. JA226 at 3:1-6.

The computer-related elements described in the specification and recited in the claims are conventional and generic. All of the generic communications software that receives messages, applies business rules, and distributes messages to new destinations operates on a "conventional communications network" using "conventional e-mail protocols." JA227 at 5:43-67. The specification further teaches that the system routes messages using "routing tables in a conventional manner" (JA227 at 6:51-55), and ultimately delivers messages using "conventional functionality for transferring messages" (JA227 at 6:15-24) and "conventional mail protocols" (JA228 at 7:4-10).

IV asserted claims 1, 7, 17, 21, 22, 24 and 26 against Trend Micro. All of the claims are substantially similar and no party claims that they differ in any manner relevant to the § 101 analysis. Claim 17 is representative:

> 17. A process for controlling the delivery of e-mail message in a business, comprising:
>
> providing to a post office a set of business rules derived from business communication policies, each business rule defining

an action applied to an email message based on the attribute of the message receiving messages at the post office;

to at least one message received at the post office, applying the business rules to the attributes of the message to determine at least one action of deferring delivery to be applied to the message;

automatically combining the e-mail message with a new distribution list specifying at least one destination post office for receiving the email message for review by an administrator associated with the destination post office and a rule history specifying at least one business rule determined to be applicable to the e-mail message; and

automatically delivering the [] message to a destination post office on the distribution list instead of a specified recipient of the [] message.

JA239.

Asserted method claims 21 and 26 are similar and include a step of "storing" business rules to be applied to messages, "selecting" messages to defer, and "delivering" non-selected messages to the intended recipient. JA239-40. Claim 22 additionally recites steps related to automatically reviewing messages after a time interval and automatically applying actions to the message. JA240.

Asserted system claims 1, 7, and 24 are also similar and recite a "post office" comprising components such as a "receipt mechanism," a "database," a "rule engine," a "distribution mechanism," and a "message store" for implementing the method claimed in claim 17. JA239. The specification describes those components as "*functional* modules for receiving, processing, and

distributing e-mail messages," and not as specific devices. JA227-28 at 6:25-7:3.

The specification discloses no specific structure or particular software for

implementing those functions.

II.   DISTRICT COURT PROCEEDINGS

On December 8, 2010, Intellectual Ventures filed the underlying lawsuits,

asserting four patents against Trend Micro, Symantec, and two other defendants.

JA165. The district court severed the Trend Micro case from the case involving

the other defendants on November 21, 2012. JA4. The district court issued a

consolidated claim construction order for both cases on December 12, 2012. JA4.

Following claim construction, IV dropped its allegations of infringement of

the '155 patent against Trend Micro, and the case proceeded on the remaining

three patents—the '050, '142 and '610 patents.

On November 6, 2014, Trend Micro requested leave to file a motion for

judgment on the pleadings based on invalidity due to ineligible subject matter

under § 101, but the district court denied the motion for leave at that time. JA155-

56 (Dkt. Nos. 159, 163).

Meanwhile, in the Symantec case, a jury trial commenced on January 26,

2015 and the jury returned a verdict on February 6, 2015, finding that Symantec

did not infringe the '050 patent but did infringe the '142 and '610 patents. The

jury also found that Symantec did not prove that the patents were invalid under §§ 102 and 103. JA2778-85.

Following Symantec's trial but prior to Trend Micro's scheduled trial date, the district court ordered Trend Micro to file its § 101 motion in conjunction with Symantec's post-trial arguments. JA157 (Dkt. No. 171). During briefing, IV dropped its allegations of infringement relating to the '610 patent against Trend Micro. JA59. A hearing was held on April 10, 2015, and the district court issued its § 101 opinion and order on April 22, 2015. JA1, JA5. The district court applied the two-step analysis for determining patent-eligible subject matter from the Supreme Court's *Alice* decision and this Court's subsequent post-*Alice* decisions, and held that the '050 and '142 patents were invalid for claiming ineligible subject matter. JA3.

With respect to the '050 patent, the district court first found that the asserted claims were directed to the abstract idea of "receiving identifying information, comparing it to other information, and outputting an indication based on the identifying information." JA23. The district court observed that the claims were "strikingly similar" to claims this Court held ineligible in *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011). In *CyberSource*, this Court invalidated method claims comprising the computer-implemented steps of obtaining transaction information, utilizing a "map" of credit card numbers to

determine valid transactions, and verifying credit card information based upon certain parameters. JA19; *see* 654 F.3d at 1376.

The district court also found the '050 patent claims similar to those in *Content Extraction*, which this Court found to be directed to the abstract idea of collecting, recognizing, and storing data. JA19-20; *see Content Extraction and Transmission LLC v. Wells Fargo Bank Nat. Ass'n*, 776 F.3d 1343 (Fed. Cir. 2014).

Moreover, the district court held that the claims of the '050 patent were not "necessarily rooted in computer technology," as in *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (2014). JA20. Rather, all claims could be performed by humans in a non-computerized "brick and mortar" context. JA20. The district court further found that the computer limitations in the '050 patent were no more than conventional steps performed in a generic computer implementation. JA23-24.

The district court similarly found the asserted claims of the '142 patent invalid for claiming ineligible subject matter. The district court held that the claims, which recited limitations related to receiving messages and selectively applying "business rules" to determine routing and delivery of messages, are "directed to an abstract idea previously implemented in brick-and-mortar post offices. Moreover, each of the collections of human-executable concepts in the

asserted claims is directed to the same abstract idea of implementing post office

functionality via a computer." JA36.

The district court also held that the other limitations included only

components that "may be implemented purely in software and executed on any

generic computer." JA42. The district court concluded that, unlike the patents in

DDR Holdings, the '142 patent claims are not "necessarily rooted" in computer

networks, but can be performed by humans, "with the exception of generic

computer-implemented steps that cannot serve as an inventive concept." JA41-42.

Further, contrary to IV's arguments that the '142 patent claims were patent-eligible

because they "do not preempt every application of filtering email," the court found

that the claims "disproportionately tie up the use of the underlying ideas." JA41.

In contrast to the '050 and '142 patents, the district court did not hold the

claims of the '610 patent-ineligible under § 101. Because IV dropped its

allegations of infringement regarding the '610 patent against Trend Micro and

agreed to a dismissal with prejudice of all claims relating to that patent (JA59), the

subject matter eligibility issues for the '610 patent were no longer at issue in the

Trend Micro case. Thus, only the '050 and '142 patents are at issue in IV's appeal

from the Trend Micro action (15-1770).[3] However, in the cross-appeal arising

---

[3] Pursuant to Fed. R. App. P. 28(i), Trend Micro hereby adopts by reference
Symantec's responsive brief as to Argument Sections II and III regarding the '050
and '142 patents.

-15-

from the Symantec action (15-1771), Symantec appeals the district court's

determination regarding the '610 patent.

Having held that the two remaining patents asserted against Trend Micro

were both invalid on the basis of subject matter ineligibility, the district court

entered final judgment in Trend Micro's favor on June 17, 2015. JA58-59.

SUMMARY OF THE ARGUMENT

The asserted claims of the '050 and '142 patents are directed to abstract

ideas and provide no inventive concepts that would confer patent-eligibility. Each

claim is directed to an abstract idea practiced by humans independent of

computers. The claims merely recite conventional, generic computer technology

to implement the abstract idea. Accordingly, these claims were properly held to be

invalid.

The district court correctly found that '050 patent claims the abstract idea of

"receiving identifying information, comparing it to other information, and

outputting an indication based on the identifying information." JA23. That is the

essence of what the claims do. [4] Receiving an identifier at a storage location (such

as a database) to look up something about a data file using the identifier is a

straightforward application of conventional, generic computing technology.

---

[4] Trend Micro respectfully submits that even more succinct formulations of the
abstract idea are perfectly appropriate, such as "using identifying information to
characterize an item."

-16-

Indeed, the '050 patent claims provide a classic example of "electronic recordkeeping—one of the most basic functions of a computer." *Alice*, 134 S. Ct. at 2359 (*citing Gottschalk v. Benson*, 409 U.S. 63, 65 (1972)).

The '142 patent claims the abstract idea of "intercept[ing] and defer[ring] delivery of messages." JA42. The practice of this abstract idea is merely automated using conventional, generic computer technology and provides no inventive concept. The district court's judgment invalidating both patents was well-founded and applied the law faithfully.

As discussed in greater detail in the sections that follow, each argument IV makes in its opening brief was carefully and thoughtfully considered (and rejected) by the district court in light of the relevant precedent of this Court and of the Supreme Court. On appeal, IV continues to press the same arguments, which are flawed in multiple respects.

First, at step one of the *Alice* test, IV equates the "abstract idea" exception to patent-eligibility only with inventions that entirely "lack concrete or tangible implementation." *See, e.g.,* OB at 22. However, the patent claims invalidated by the Supreme Court in *Alice* and in cases such as *Benson* and *Parker v. Flook*, 437 U.S. 584 (1978), were no less concrete and tangible in implementation than the '050 and '142 patents insofar as they also recited generic computer hardware and software. The same is true of many of the claims invalidated by this Court in cases

-17-

such as *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir.

2012), *Content Extraction and Transmission LLC v. Wells Fargo Nat'l Ass'n*, 776

F.3d 1343 (Fed. Cir. 2014) and *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350,

1352 (Fed. Cir. 2014). In fact, this Court recently rejected a similar argument

made by IV in *Intellectual Ventures I, LLC v. Capital One Bank (USA)*, 792 F.3d

1363, 1367 (Fed. Cir. 2015) ("[W]hile the claims recite budgeting using a

'communication medium'…that limitation does not render the claims any less

abstract."). The narrow reading of "abstract idea" proposed by IV, therefore, lacks

any basis in law.

Second, relatedly, IV suggests that in analyzing whether a claim reciting

computer-related limitations is directed to an abstract idea, a court must include

any such computer-related limitations in its formulation of the proposed abstract

idea. *See* OB at 25-26; 36-37. IV is incorrect on this point as well, as shown not

only by the cases cited immediately above but by virtually the entire body of § 101

law from the Supreme Court and this Court. Again, IV made a similar argument in

Intellectual Ventures, 792 F.3d at 1367, and this Court rejected it.

Third, at step two of the *Alice* test, IV attempts to rely on generic computer-

related features as imparting an "inventive concept" to the claims, when the same

features have been held in other cases to constitute non-inventive, pre- and post-

solution activity that is insufficient to confer patent-eligibility. For example,

sending and receiving data over a computer network, performing a lookup in a

database, performing generalized mathematical algorithms in software, and

applying rules to forward email are all examples of non-inventive, routine and

generic computer processing that are incorporated into the claims of the '050 and

'142 patents.

Fourth, IV misstates the '050 patent's intrinsic record significantly.   The

specification of the '050 patent says nothing about an alleged "protection gap" or a

"volume problem."   All the expert testimony cited on this point by IV is irrelevant.

See OB at 10-14.   Even if the specification did provide detailed instructions for

implementing the invention to solve these alleged problems (and it does not), that

would not be enough to save patent-eligibility where, as here, the claims are

directed to an abstract idea implemented with generic computer processing. *See,*

e.g., *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir.

2015) (finding claim to be directed to an abstract idea where the claims did not

provide any detail about how to implement the "essential innovation"); *Versata*

Dev. Group, Inc. v. SAP Am., Inc., 793 F.3d 1306, 1332, (Fed. Cir. 2015) ("[A]ll of

the parties—including Versata—recognize that these supposed benefits [of the

invention] are not recited in the claims at issue.").

Fifth, IV conflates the novelty analysis under 35 U.S.C. §§ 102 and 103 with

the subject matter eligibility analysis under 35 U.S.C. § 101. Novelty, however, is

a separate inquiry which does not bear on the patent-eligibility issue. *See, e.g., Diamond v. Diehr*, 450 U.S. 175, 189-90 (1981). A claim may recite a generic and conventional computer implementation of an abstract idea, thus taking it outside the scope of eligibility under § 101, yet the claimed invention could still hypothetically satisfy the requirements of §§ 102 and 103. IV disregards this established principle.

Finally, IV misapprehends the concerns relating to preemption in § 101 law. The relevant consideration is whether the claims *unduly* preempt the practice of the abstract idea, and thereby "disproportionately t[ie] up the use of the underlying idea." *Alice*, 134 S. Ct. at 2354. IV argues, in effect, that only *complete* preemption of an abstract idea is sufficient to render a patent claim ineligible under *Alice*. *See* OB at 46-47; 55-56. This is incorrect, as this Court has explicitly held. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) ("[T]he absence of complete preemption does not demonstrate patent eligibility.").

In light of these misapprehensions, IV's flawed arguments in favor of the patent-eligibility of the '050 and '142 patents should be rejected. Respectfully, the judgment of the district court was correct and should be affirmed.

STANDARD OF REVIEW

This Court reviews the district court's grant or denial of summary judgment motions under the law of the regional circuit. *Lexion Med., LLC v. Northgate*

Techs., Inc., 641 F.3d 1352, 1358 (Fed. Cir. 2011). Under Third Circuit law, a

district court's grant of summary judgment is reviewed *de novo*. *Doe v. Indian*

River Sch. Dist., 653 F.3d 256, 275 n.7 (3d Cir. 2011). Patent eligibility under

§101 is a matter of law that this Court likewise reviews *de novo*. *Intellectual*

Ventures, 792 F.3d at 1366.

No Supreme Court case analyzing patent eligibility under §101 has applied a

presumption of validity under 35 U.S.C. § 282. In *Alice*, the Supreme Court

declined to include the presumption in its substantive analysis of patent eligibility.

Compare CLS Bank Int'l v. Alice Corp. Pty., 717 F.3d 1269, 1304-05 (Fed. Cir.

2013) and *Alice,* 134 S. Ct. 2347 (2014) *generally*.

ARGUMENT

I.   **RELEVANT LAW**

Section 101 provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court's two-part framework set forth in *Alice* controls the disposition of this appeal. *See Alice*, 134 S. Ct. at 2355.

At step one of the *Alice* framework, the Court must determine whether the asserted claims are directed to an abstract idea. *Id.* As the Supreme Court has recognized, § 101 "contains an important implicit exception" for abstract ideas. *Id.* at 2354 (citation omitted). Such ideas are not patent eligible as a matter of law because they are basic tools in the "storehouse of knowledge" that are "free to all … and reserved exclusively to none." *Bilski v. Kappos*, 561 U.S. 593, 602 (2010)

In *Alice*, the Supreme Court expressly stated that it would not "labor to delimit the precise contours of the 'abstract idea' category." *Alice*, 134 S. Ct. at 2357.   In that case, as in *Bilski*, the Supreme Court found an abstract idea in a "fundamental economic practice long prevalent in our system." *Id.* at 2356. Even so, the category of abstract ideas has never been limited in such a manner. *See Benson*, 409 U.S. at 64 (describing as "abstract" a process for converting

binary-coded decimal numerals into pure binary numerals); *Flook*, 437 U.S. at 589

(characterizing using a mathematical algorithm to calculate alarm limits as a

"principle . . . in the abstract"). Indeed, in *Alice*, the Supreme Court declined to

hold the "abstract idea" category to be limited to "preexisting, fundamental truths

that exist in principle apart from any human action," and observed that abstract

idea could include a "method of organizing human activity." 134 S. Ct. at 2356.

And in *Intellectual Ventures*, this Court declined to limit its interpretation of the

abstract idea category to "economic practices." 792 F.3d at 1369 (describing one

test for abstractness as whether the claims cover a "fundamental . . . practice long

prevalent in our system" (ellipsis in original)). Neither has the "abstract idea"

category been limited only to claims which entirely lack a "concrete and tangible"

implementation. *See, e.g.*, *CyberSource,* 654 F.3d 1366, 1368 n.1 (Fed. Cir. 2011);

Content Extraction, 776 F.3d at 1346-49.[5]

    Notably, an abstract idea "does not become nonabstract by limiting [it] to a

. . . technological environment," such as in a computer. *Intellectual Ventures*, 792

F.3d at 1366. The Court must instead consider the "basic concept" of the invention

in light of the claims. *See Bilski,* 561 U.S. at 611. The Court must determine,

---

[5] Nor has either the Supreme Court or this Court applied a "could-not-get-the-same-result-without-a-computer" test in determining whether a computer-implemented claim is directed to an abstract idea, as certain *amici* appear to advocate. *See* Brief of Amici Curiae Intellectual Property Professors, Document No. 39, at 12-13.

notwithstanding a computer-based implementation, whether the "heart" of the claims—the "'most important aspect'"—amounts to an abstract idea. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014) (identifying abstract idea at the "heart" of computer implemented claims at step one); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336 (Fed. Cir. 2013) (same); *Internet Patents Corp.,* 790 F.3d at 1348 (determining that "essential, 'most important aspect'" amounted to abstract idea at step one).

At *Alice* step two, the Court must determine whether the additional limitations "add an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." 134 S. Ct. at 2357. The prohibition on patenting abstract ideas cannot be circumvented merely through the "draftsman's art"—*i.e.*, by dressing up an abstract idea with inconsequential steps or features. *Id*. at 2359. Simply implementing an abstract principle using well-known computer components or functions, limiting the idea to a particular technological environment, or adding data-gathering steps or token extra-solution activity is insufficient. *Id*. at 2357-59; *see also Intellectual Ventures*, 792 F.3d at 1367 ("A simple instruction to apply an abstract idea on a computer is not enough."). Adding such "well-understood," "routine," or "conventional" computer features risks preempting the idea itself and contributes nothing to the public store of knowledge. *Alice*, 134 S. Ct. at 2359. Nor "does claiming the improved speed

or efficiency inherent with applying the abstract idea on a computer provide a

sufficient inventive concept." *Intellectual Ventures*, 792 F.3d at 1367; *see also*

Bancorp Servs., LLC v. Sun Life Assurance Co. of Can., 687 F.3d 1266, 1278 (Fed.

Cir. 2012) (performing tasks "more efficiently via a computer" does not make

claims patent eligible).

In *Alice*, for example, although the claims purported to describe a complex

"computerized scheme for mitigating 'settlement risk,'" 134 S. Ct. at 2352, the

Supreme Court found that the patentee's claims merely "require a generic

computer to perform generic computer functions," and, as a whole, "simply recite

the concept of intermediated settlement as performed by a generic computer." *Id.*

at 2359. As the Court explained, the patentee did not "purport to improve the

functioning of the computer itself" or "effect an improvement in any other

technology or technical field." *Id.* Applying those same principles, this Court

repeatedly has held that implementing an abstract idea in a computer environment

or on the Internet does not transform abstract ideas into patent-eligible inventions.

See, e.g., Internet Patents Corp., 790 F.3d at 1348-49; *Intellectual Ventures*, 792

F.3d at 1366, 1369-70; *Content Extraction*, 776 F.3d at 1346-49; *Ultramercial*, 772

F.3d at 716-17; *Accenture*, 728 F.3d at 1345.

II.   THE ASSERTED CLAIMS OF THE '050 PATENT ARE DIRECTED TO PATENT-INELIGIBLE SUBJECT MATTER

A.   The Claims of the '050 Patent Are Directed To An Abstract Idea

The district court properly held that the asserted claims of the '050 patent are directed to the abstract idea of "receiving identity information, comparing it to other information, and communicating results based on the identifying information." JA20. This abstract idea comprises fundamental steps performed by humans.

1.   Characterizing items based on identifying information is a long-standing, fundamental human activity

Human performance of the abstract idea underlying the asserted claims is routine and is not limited to computer-automated environments. Humans have long performed the steps of "receiving identifying information for an item, comparing it to other information, and communicating results based on the identifying information." JA20.

The district court, which presided over a two-week trial involving the patents at issue in this appeal, found persuasive several brick-and-mortar analogies proposed by Trend Micro and Symantec that reflect human performance of the abstract idea underlying the claims. JA20-21. Other analogies demonstrate the same abstract idea. For example, the abstract idea can be found in the process of looking up a characteristic of a book using an ISBN code—a process which has been performed in computerized fashion for decades. *See, e.g.*, JA3900-3901,

Phillip Bradley, *Book Numbering: The Importance of the ISBN*, 18 THE INDEXER 1, 25-26 (1992). Likewise, the Dewey Decimal System performed a similar function. *See, e.g.*, Library of Congress Dewey Decimal Classification Numbers, available at http://www.loc.gov/marc/bibliographic/bd082.html.   The abstract idea can be found in the process of looking up a characteristic of a retail product using a universal product code—another decades-old, well-known process.[6]   Similarly, it can be found in the process of looking up a characteristic of a car by VIN number (or license plate number). *See, e.g.*, 49 C.F.R. 565 *et seq.* (requiring VIN numbers for all cars as of 1981). As the district court appreciated, processes like these well-known human activities provide the abstract idea—*i.e.*, the "basic concept"—behind the claims. *See Bilski*, 561 U.S. at 611.

The existence of brick-and-mortar analogies for a computer-automated process may not be determinative in every case as to whether the claim is directed to an abstract idea. But the existence of such analogies can provide a strong indication that the basic concept behind the claim is a "method of organizing human activity," and therefore falls into this judicially-created exception to patent-eligibility. *See Alice*, 134 S. Ct. at 2356 ("Although hedging is a longstanding commercial practice, it is a *method of organizing human activity*, not a truth about the natural world that has always existed.") (citing *Bilski*, 561 U.S. at 593);

---

[6] *See* http://www.03.ibm.com/ibm/history/ibm100/us/en/icons/upc/team

buySAFE, 765 F.3d 1353 ("[Section 101] also excludes the subject matter of certain claims that by their terms read on . . . a human-controlled series of physical acts . . . .").

IV argues that the problem of "determining the content of a digital file . . . did not exist before and does not exist outside of computers." OB at 31-32. Similarly, IV argues that "there is no possible, pre-Internet, brick-and-mortar analog to the claimed steps." OB at 36. IV is incorrect. These arguments amount to no more than the tautological assertion that claims that recite performance on a computer must be performed on a computer. Given that all modern computers operate on digital files, the limitation relied on by IV is no more meaningful than saying "apply it with a computer." *See Intellectual Ventures*, 792 F.3d at 1368. As expressly addressed by the Supreme Court in *Alice*, restricting an abstract idea to use in a particular technological environment (such as on a computer) does not alone confer patent-eligibility. *See Alice*, 134 S. Ct. at 2358 (*citing Bilski*, 561 U.S. at 593). In any event, identifying characteristics of items—whether books, cars, or pizza coupons—was a problem with which humans were long-acquainted prior to computing and the Internet, and for which the generalized solution of looking up an identifier to gather additional information was well-known.

Significantly, here the inventors even admitted that, leaving aside the general purpose computer terminology in the claims, the claimed steps could be

performed by a human using pencil and paper. JA3425-3430 (Talley Tr.) at 42:7-24; 45:6-11; 46:3-14; 46:18-47:25; JA3441-3442 (Pace Tr.) at 131:16-132:7.

IV also argues that the district court ignored the computer-related elements recited in the claims and therefore "eviscerated explicit claim limitations" such as "file content identifier agent" and "mathematical algorithm." OB at 37. IV's argument, however, runs counter to the analysis set forth by the Supreme Court in *Alice* and its predecessors and applied by this Court in numerous decisions.

For example, in *Alice*, the Supreme Court held that the claims at issue were directed to the abstract idea of "intermediated settlement," notwithstanding the recitation of computer hardware- and software-related limitations and the agreement of all parties that the claims were necessarily practiced using computers. 134 S. Ct. at 2353.

As another example, in *buySAFE*, this Court held ineligible claims that, like the asserted claims of the '050 patent, involved a computer "receiving" information across a computer network (such as the Internet), conducting some "processing" described at a high level of generality, and then outputting an "offer" back across the network in response.[7] Despite all the computer-related limitations

---

[7] Claim 1 of U.S. Patent No. 7,644,019, recited:

1. A method, comprising:

receiving, by at least one computer application program running

-29-

in the claim, this Court formulated the abstract idea as "creating a contractual relationship—a 'transaction performance guaranty.'" *buySAFE*, 765 F.3d at 1355.

Similarly, in *Ultramercial*, this Court observed that the recitation of "certain additional limitations" in conjunction with the abstract idea (*e.g.*, consulting an "activity log") may add a "degree of particularity" to the claims, but where the "concept embodied by the majority of the limitations" merely describes the abstract idea, the claim is not patent-eligible. *Ultramercial*, 772 F.3d at 715.

Likewise, in *Intellectual Ventures*, this Court determined that the patent claims at issue were directed to the abstract idea of "tracking financial transactions to determine whether they exceed a pre-set spending limit (*i.e.,* budgeting),"

> on a computer of a safe transaction service provider, a request from a first party for obtaining a transaction performance guaranty service with respect to an online commercial transaction following closing of the online commercial transaction;
>
> processing, by at least one computer application program running on the safe transaction service provider computer, the request by underwriting the first party in order to provide the transaction performance guaranty service to the first party,
>
> wherein the computer of the safe transaction service provider offers, via a computer network, the transaction performance guaranty service that binds a transaction performance guaranty to the online commercial transaction involving the first party to guarantee the performance of the first party following closing of the online commercial transaction.

buySAFE, 765 F.3d at 1351-52.

despite IV's argument that the inclusion of claim terms such as "communication medium" meant that the claims could not be directed to an abstract idea. *See Intellectual Ventures*, 792 F.3d at 1367.

These cases demonstrate that computer-related limitations are elided in formulating the abstract idea if they are generic and are not part of the "basic concept" underlying the invention.

2.   Recitation of "concrete and tangible" generic computer elements does not make the claims any less directed to an abstract idea

IV asserts that the claim language of the '050 patent ties the abstract idea to a "concrete and tangible" computer implementation. OB at 37. However, "the fact that a computer 'necessarily exist[s] in the physical, rather than purely conceptual, realm is beside the point.'" *Alice*, 134 S. Ct. at 2358. As the Supreme Court stated:

> There is no dispute that a computer is a tangible system (in § 101 terms, a machine), or that many computer _ implemented claims are formally addressed to patent-eligible subject matter. But if that were the end of the § 101 inquiry, an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept. Such a result would make the determination of patent eligibility depend simply on the draftsman's art.

Id. at 2358-59.

Indeed, many claims reciting "concrete and tangible" computer elements have been held patent-ineligible under § 101. *See Alice,*134 S. Ct. 2347 (2014) and *CLS Bank Int'l v. Alice Corp. Pty.*, 717 F.3d 1269, 1304-05 (Fed. Cir. 2013) (claims held abstract notwithstanding, *inter alia*, the recitation of computer-related claim terms such as "computer," "data storage unit," "data processing system," "first party device," "communications controller," "records," "program code," and "instruction,"); *Benson*, 409 U.S. at 43 ("storing . . . in a reentrant shift register"); *Internet Patents Corp.*, 790 F. 3d at 1345 ("plurality of icons," "web browser," "hyperlink," "dynamically generated online application form set," "user input"); *Intellectual Ventures*, 792 F.3d at 1368 ("storing in a database," "profile keyed to user identity," "communication medium," "transaction summary data"); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d at 1352 ("computer," "application program," "processing," "computer network"); *Accenture*, 728 F.3d at 1338-39 ("insurance transaction database," "task library database," "client component," "server component," "task engine," "event processor"); *CyberSource*, 654 F.3d at 1368 n.1 ("computer readable medium," "program instructions," "processors, " "parameters," "map"); *Content Extraction*, 776 F.3d at 1345 ("automated digitizing unit," "memory," "first data field," "receiving output"); *Digitech Image Techs., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1349 (Fed. Cir. 2014) ("device profile," "first data," "second data," "digital image reproduction system,"

"device dependent transformation of color information content," "device response characteristic functions"); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1361 (Fed. Cir. 2015) ("electronic messages," "network," "programmed to communicate offer terms," "devices…configured"); *Ultramercial,* 772 F.3d at 712 ("content provider," "media products," "activity log," "text data," "facilitating…display"); *Planet Bingo, LLC v. VKGS LLC*, 576 Fed. App'x 1005, 1008 (Fed. Cir. 2014) ("computer with a central processing unit," "memory," "input and output terminal," "printer," "video screen," "program"). Merely reciting computer-related elements that suggest some form of "concrete and tangible" implementation does not make the basic concept underlying a claim any less abstract.

Here, although certain of the generic computer-related features (such as receiving a "content identifier" over a "network") may constrain the scope of the claims to a particular technological environment, the "majority of the limitations" (*see Ultramercial*, 772 F.3d at 715) simply relate to the abstract idea of receiving identifying information, comparing it to other information, and outputting an indication based on the identifying information. *See* JA23; JA248 at 8:13-27.

Even if the district court had formulated the abstract idea to include computer-implementation, it would still be no less abstract. For example, in *Internet Patents Corp.*, the district court found that the claims were directed to the

abstract idea of "retaining information in the navigation of online forms." 790

F.3d at 1358. Despite the fact that the abstract idea was framed in technological

terms, this Court nevertheless affirmed the district court's holding of patent-

ineligibility for claims that "contain[ed] no restriction on how the result is

accomplished."

   IV argues that the '050 patent specification describes a problem "unique to

computers"—namely, identifying content such as spam or junk email. OB at 31-

32. The specification, however, is highly generalized to describing methods of

"identifying content" by making a query to a central repository (*e.g.*, a database),

and otherwise provides little implementation detail. *See, e.g.*, *Internet Patents*

Corp., 790 F. 3d at 1348 (finding claim to be directed to an abstract idea where

neither the claim nor the specification provided any detail regarding how to

implement the "essential innovation"). For example, the written description states

that the system "can be utilized to classify any sort of text or binary data . . . ."

JA246 at 3:24-25. It further states that the system may be implemented in

"executable code" and "can be designed to interact with any number of

commercial or free email systems, or other data transfer systems in applications

other than e-mail." JA246 at 3:65-4:34. All the hardware elements are described

generically as "systems."[8]

_____

[8] Nor is IV's appeal to the PTO's recent guidance concerning abstract ideas helpful

Although the written description does mention a frequency-based algorithm

for spam/junk email identification (JA247 at 6:2-8), that algorithm is not part of

the asserted claims. Even if the specification did teach the claimed methods in

great detail, "the level of detail in the specification does not transform a claim

reciting only an abstract concept into a patent-eligible system or method."

Accenture, 728 F.3d at 1345. As indicated in Section III.A.1, *supra*, the claims are

addressed to long-standing human activity and do not solve a problem "rooted in

computer technology." OB at 36-37. Characterizing items based on identifying

information has been done throughout human history, and it is this broad "method

of organizing human activity" to which the claims are directed. *See Alice*, 134 S.

Ct. at 2356.

IV argues that the asserted claims "require a software program that creates a

specific and unique sequence of bytes." OB at 35. This is incorrect. The claims

simply require receiving a "content identifier" (created using a generic

"mathematical algorithm"), matching it against other identifiers, and outputting an

---

to IV. *See* OB at 38, n.4. The PTO's guidance is not binding on this Court, but
even if it were, the claims recited in the PTO's examples contain far more
implementation detail than the claims of the '050 patent and recite specific,
unconventional computer- processing steps. *See* JA2862-63, at hypothetical claims
1 and 2. IV avoids discussing the actual claim language, instead selectively citing
to the "Background" description of the first exemplary invention. *See* JA2861. In
fact, the asserted claims of the '050 patent are much more similar to hypothetical
claim 1 of Example 21 from the PTO's July 2015 Update ("Transmission of Stock
Quote Data"), which the PTO finds to be *ineligible*. *See* JA3180-81.

"indication of a characteristic" based on the matching. In fact, the written

description expressly states that an incoming digital identifier "is not required to be

of fixed length" at all. JA246 at 4:13-14.   Nor does the written description

describe a particular format for the "indication of a characteristic." Thus, there is

no particular format or sequence of bytes specified in the claims.

Finally, IV's proposed analysis conflates the two steps of the *Alice* inquiry.

Step one does not require examination of the purported "inventive concept" of the

generic computer-related terms. It is step two at which computer-related

limitations are considered to ascertain whether they provide—considered

individually or as an ordered combination—any alleged "inventive concept" over

the practice of the abstract idea alone. Importing this analysis into step one, as IV

seems to suggest, would effectively render step two of *Alice* redundant.

B.   The Asserted Claims of the '050 Patent Do Not Provide An Inventive Concept Beyond The Abstract Idea Itself

At *Alice* step two, the elements of a claim must be examined to determine

whether the claim contains an inventive concept sufficient to transform the claimed

abstract idea into a patent-eligible application. *Alice*, 134 S. Ct. at 2357.

Here, the district court correctly determined that the computer-related

limitations of the asserted claims simply append conventional computer-

implemented steps, specified at a high level of generality. This is insufficient to

supply an inventive concept and thereby transform the practice of the abstract idea

into a patent-eligible invention. Indeed, the asserted claims of the '050 patent simply implement "electronic recordkeeping," which is "one of the most basic functions of a computer." *Alice*, 134 S. Ct. at 2359.

1. The computer-related limitations recited in the claims are conventional and generic

In the litigation below, IV contended that computer-related limitations such as "processing system," "source system," "file content identifier agent," "data files," "source system," "mathematical algorithm" and "network" provide (either separately or in concert) an inventive concept. OB at 39-44.

A "processing system" is just a computer. A "network" merely connotes a connection between computers. An "agent" is merely a generic piece of software that carries out some task. These limitations, at most, comprise extra-solution elements—part of the "draftsman's art" of attempting to cover as many computer-implemented ways of implementing the abstract idea as possible. *Alice*, 134 S. Ct. at 2359.

The following chart addresses IV's arguments that the computer-related elements recited in claim 9 are unconventional (OB at 44):

'050 Claim 9 Element	Generic, routine, and conventional steps
"receiving, on a processing system, file content identifiers for data files from a plurality of file content identifier generator agents, each agent provided on a source system and creating file content IDs using a mathematical algorithm, via a network"	The "processing system" (generic computer) receives the "file content identifier" over a generic computer "network" from a "source system" (generic computer). Contrary to IV's arguments (OB at 44), this claim step does not identify "specific data that must be created and transmitted." It merely requires a generic "file content identifier" created by a generic software "agent" using an unspecified, generic "mathematical algorithm." This is all "well-understood, routine, conventional" computer processing. *Alice*, 134 S. Ct. at 2359.
"determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers."	This step simply involves matching computer data—*e.g.*, identifiers and their associated data. This is "well-understood, routine and conventional" computer processing. *Alice*, 134 S. Ct. at 2359.
"outputting, to at least one of the source systems responsive to a request from said source system, an indication of the characteristic of the data file based on said step of determining"	This step sends back a result to the "source system" over the "network" based on the matching. Again, this is "well-understood, routine and conventional" computer processing. *Alice*, 134 S. Ct. at 2359.

These elements have been found in other cases to be conventional and generic. For example, a "processing system" is "purely functional and generic." *Alice*, 134 S. Ct. 2360. Sending and receiving data over a computer network "is not even arguably inventive." *buySAFE*, 765 F.3d at 1355. The use of a database to store and look up records such as identifiers and their related data is entirely

conventional. *See Intellectual Ventures,* 792 F.3d at 1368. Indeed, "routine input, memory, look-up, comparison and output capabilities" are conventional and non-transformative. *SmartGene, Inc. v. Advanced Bio. Labs., SA*, 555 Fed. App'x 950, 951 (Fed. Cir. 2014).

Using a "mathematical algorithm" to "manipulate existing information to generate additional information" is not inventive. *Digitech*, 758 F.3d at 1351. Even if the '050 patent claims did require a specific mathematical algorithm (and they do not), that would be insufficient to show an inventive concept. *See Bilski*, 561 U.S. at 599. The "Detailed Description" section of the '050 patent specification states that "any hashing algorithm can be utilized" in the system. JA246 at 3:65-4:3. In any event, the use of hashing algorithms for identifying content of files was well-known. *See id.* at 3:65-4:14; *see also* JA3421-22, Talley Tr. at 36:22-37:7 ("Q. Do you agree that it's fair to say that prior to the conception of the '050 patent it was well-known to use hashing as a way to reduce a large amount of data to a small amount of data to confirm that two data objects were the same? A. Yes. Q. That's not something you invented? A. That's correct.").

Similarly, "use[s] of a computer to obtain data, adjust account balances, and issue automated instructions…are 'well-understood, routine, conventional activit[ies]' previously known to the industry." *Alice*, 134 S. Ct. at 2359; *see also Accenture*, 728 F.3d at 1335 (finding limitations such as "task library database,"

"event processor," and "task engine", which "are essentially a database of tasks, a means to allow a client to access those tasks, and a set of rules that are applied to that task on a given event," to be conventional).

Considered as an "ordered combination," there is nothing unconventional added by the purely generic computer-processing steps used to implement the abstract idea of characterizing an item using an identifier. Creating an identifier using unspecified software applying an unspecified mathematical algorithm, sending that identifier across a network to another computer to perform a database lookup, and returning back a result is a conventional process capable of performance by any modern computer, including at the time the alleged inventions of the '050 patent were made. This combination of steps "ad[ds] nothing …that is not already present when the steps are considered separately." *Alice*, 134 S. Ct. at 2359 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1298 (2012)).

To the extent IV argues that this combination of steps had not been practiced in the malware-detection context before (*see* OB at 43), that argument: (1) is incorrect, as the claims are not limited to malware detection; (2) assuming the claims were so limited, is merely an attempt to limit this abstract idea to a particularly technological context, which does not confer patent-elibility; (3) assuming the claims were so limited, is directed to novelty, not subject matter

eligibility; and (4) is contrary to the PTO's determination in the co-pending *inter partes* reexamination proceeding (*see* JA3786, JA3793-98).

In short, all of the computer-related elements recited in the claims are merely window-dressing for the abstract idea, confining it to a "particular technological environment." *Alice*, 134 S. Ct. at 2358; *Bilski*, 561 U.S. at 593. This is insufficient to confer patent-eligibility.

2. IV's discussion of alleged novelty and utility is irrelevant and mischaracterizes the record

IV repeatedly seeks to rely on the trial record from the Symantec case for the proposition that the claims are "new and useful" and therefore patent-eligible. OB at 39-40. In particular, IV argues that the fact that the jury in the Symantec case did not find the '050 patent invalid over the prior art presented at trial by Symantec is evidence that the claims "supply a 'new and useful' application of the idea" and are, therefore, patent-eligible. OB at 53. This argument is misguided for several reasons.

First, novelty is a distinct analysis from the subject matter eligibility analysis. In fact, the Supreme Court has rejected the same argument IV advances here: "It has been urged that novelty is an appropriate consideration under §101. Presumably, this argument results from the language in §101 referring to any 'new and useful' process, machine, etc. . . . The questions . . . of whether a particular invention is novel are 'wholly apart from whether the invention falls into a

category of statutory subject matter." *Diamond v. Diehr*, 450 U.S. 175, 189-90

(1981).[9]

Second, the Symantec jury was not presented with argument or evidence

related to the §101 inquiry and did not decide that issue. In fact, the district court

declined to allow the jury to hear such argument and evidence. JA5.[10]

Third, IV's case against Trend Micro was severed from the case against

Symantec, and the Trend Micro case was resolved on a determination of invalidity

prior to trial based on subject matter ineligibility. JA58-59. The issues of novelty

and nonobviousness under §§ 102 and 103 have not been tried against Trend

Micro, and the fact that the Symantec jury did not find the '050 patent invalid

under §§ 102 and 103 after Symantec's trial presentation has no bearing on the

Trend Micro case or (for reasons discussed above) on the § 101 issues.

Finally, in the parallel *inter partes* reexamination proceedings for the '050

patent, all claims stand finally rejected as anticipated by prior art. Even if novelty

were properly considered as part of the § 101 analysis (and it is not), the Central

---

[9] *See also Mayo*, 132 S. Ct. at 1303-04 (*quoting* H.R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952)): "A person may have 'invented' a machine or a manufacture, which may include anything under the sun that is made by man, *but it is not necessarily patentable under section 101* unless the conditions of the title are fulfilled." (emphasis in original).

[10] Moreover, the jury determined that Symantec's accused technology did *not* infringe the '050 patent; thus, IV's suggestion that the purported value of Symantec's accused technology somehow demonstrates that *the '050 patent* is "new and useful" (OB at 40) is illogical and incorrect.

Reexamination Unit of the PTO has determined that the asserted claims are not, in fact, novel.[11] JA3793-98.

3.   **IV misapprehends the relevant § 101 policy concerns regarding preemption**

Preemption of an abstract idea is not an independent test for eligibility. Where a claim would unduly preempt the implementation of an abstract idea in relation to the contribution of the patent to the art, the claim is not patent-eligible. IV argues, in essence, that an abstract idea must be *completely* preempted by the claim in order to be patent ineligible under § 101. OB at 46. That is not the law.

The Supreme Court has explained that preemption is the underlying concern that drives the analysis that excludes laws of nature, natural phenomena, and abstract ideas from patentable subject matter. *See Alice*, 134 S. Ct. at 2354 ("Accordingly, in applying the §101 exception, we must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into a patent-eligible invention."). To do this, courts apply the *Alice* test, which at step two is used to determine "whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*,

---

[11] Indeed, the Central Reexamination Unit found all the asserted claims anticipated not only under the "broadest reasonable interpretation" standard applicable in reexamination (*see In re Yamamoto*, 740 F.2d 1569 (Fed. Cir. 1984)), but also under *the district court's* claim construction. JA3938; 3942.

-43-

132 S. Ct. at 1297). The *Alice* test answers the question of preemption; it is not a

separate test. *See also Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371,

1379 (Fed. Cir. 2015) ("[Q]uestions on preemption are inherent in and resolved by

the §101 analysis. . . . While preemption may signal patent ineligible subject

matter, the absence of complete preemption does not demonstrate patent

eligibility.").

The presence of non-infringing alternatives proposed by defendants has no

bearing on whether a claim would unduly preempt the underlying abstract idea.

Accordingly IV's argument in support of patent-eligibility based on lack of

complete preemption lacks merit.

III.   THE '142 PATENT CLAIMS PATENT-INELIGIBLE SUBJECT MATTER

A.   The Asserted Claims of the '142 Patent are Directed to an Abstract Idea

All asserted claims of the '142 patent are invalid for claiming patent-

ineligible subject matter. As the district court properly recognized, the claims are

directed to the fundamental, long-standing process of intercepting and deferring

delivery of messages—in other words, "implementing post office functionality via

a computer." JA36. The claims use entirely conventional technology to automate,

in a computer network, the same processes that were well-known and standard in

the brick-and-mortar world.

1.   The '142 patent claims are directed to a long-standing process employed by humans without computers

The '142 patent expressly ties the alleged invention to the long-standing, non-technical process of using rules to control the flow of written communication within an organization. The specification discloses that many organizations have "elaborate methods to control the flow of memorandum, publications, notices, and other printed information within the organization." JA225 at 1:14-17. Further, organizations may filter or block documents sent internally to specific persons or departments, or they may automatically archive documents distributed by certain persons or departments. JA225 at 1:18-28. The specification observes that "organizations ordinarily have rules that prohibit distribution of certain types of documents, such as those containing disparaging, sexist, or profane materials. These various rules are typically documented as part of the organization's business communication policies, and managed by the personnel, human resources, or other departments." JA225 at 1:28-34.

The inventors of the '142 patent sought to implement this admittedly common business practice using conventional email and computer technology: "Accordingly, it is desirable to provide a *generalized* data server that includes the ability to define business rules for handling the distribution of various types of data objects." JA225 at 2:61-67.

-45-

The abstract idea of routing messages based upon the application of business rules is not a problem specifically rooted in computer technology. IV even informed the district court early in the case that there was little difference between the alleged invention and a brick-and-mortar post office:

> In a business mail environment business rules are applied at the 'post office.' In the typical environment, the post office resides on a mail server, where the company's emails are received, processed, and routed to recipients. *Conceptually, this post office is not much different than a United States Postal Service office that processes letters and packages, except that the process is all computer-implemented and done electronically in a matter of seconds.* The business rules are automatically applied to each incoming message, and the post office takes action on messages that trigger the business rules. Other messages are simply routed normally to their designated recipients.

JA3882, IV's Technology Tutorial at 49.

IV objects to the analogies to corporate mailroom processes the district court adopted in its order (*see* JA37-39). Even the named inventors of the '142 patent, however, admitted that the abstract idea underlying their technical implementation could be practiced with paper mail:

> Q. . . . [H]ow is Gatekeeper [a product that embodied the '142 patent] different than FormMail [a prior art reference]?
>
> A. . . . I can use an analogy of taking a letter out to the post office. This is how we explained it. You take it out to your mailbox. The letter carrier comes, grabs it and they deliver it. Okay. Now I've got somebody basically

-46-

> stopping the letter carrier, going in, reaching into the mail bag, pulling out the message, opening it up and looking at it, okay, and saying, hmm, based upon this criteria, I'm going to let it go through or I'm just going to take it for a while. . . .

JA3302, Wood Tr. at 257:4–22.

IV argues that the '142 patent claims provide a "computer-specific solution to a computer-specific problem." OB at 50. This is not the case. As the '142 patent itself states, routing messages within an organization through the application of business rules *was* a long-standing practice, and the '142 patent claims merely implement that abstract idea using computers.

To the extent IV seeks to rely on *DDR Holdings,* that case is inapposite. In *DDR Holdings*, clicking a link to a third-party website from the primary hosted website had consequences (*i.e.*, being redirected to that site) that "d[id] not arise" in the brick-and-mortar world. 773 F.3d at 1258. There, the asserted claims stood apart because they "d[id] not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet." *Id.* at 1264. Applying a pre-Internet business practice to the Internet context, however, is *exactly* what the '142 patent does, as the patent specification, the inventors, and IV all agreed.

IV insists that the patent claims are not abstract because they specifically identify computer technology that must be capable of performing the technical

-47-

limitations and acting upon "email and 'data objects,' which could include other
computer data." OB at 50. However, as addressed in detail in Section III.A.1,
supra, cases such as *Alice*, *Ultramercial*, and *Content Extraction* demonstrate that
the recitation of computer-related elements does not prevent a claim from being
directed to an abstract idea. As in those cases, the '142 patent claims merely claim
the abstract idea of intercepting and deferring delivery of messages implemented
using generic computer elements applying rules. This Court has found abstract and
patent-ineligible claims in which computers apply rules based on digital input.
See, e.g., Accenture, 728 F.3d at 1344 (finding abstract "generating tasks [using]
rules . . . to be completed upon the occurrence of an event"); *SmartGene*, 555 F.
App'x at 955 (finding abstract claims that "call on a 'computing device,' with
basic functionality for comparing stored and input data and rules"); *Internet
Patents Corp.*, 790 F. 3d at 1348 (finding abstract claims directed to "retaining
information in the navigation of online forms."). Recitation of computer
limitations alone does not confer patent eligibility.

IV further argues that the claims are not drawn to an abstract idea because
"the asserted claims require several distinct software components each performing
a specific function with no 'brick-and-mortar equivalent.'" OB at 50. This
argument, too, lacks merit. In *Content Extraction*, the patentee argued that the
claims were not drawn to an abstract idea because the claims required specific

machines, namely a scanner, and "human minds are unable to process and recognize the stream of bits output by a scanner." *Content Extraction*, 776 F.3d at 1347. Similarly, in *Internet Patents Corp.*, the claims recited distinct software components having no brick-and-mortar equivalent such as a "plurality of icons," a "web page," a "web browser," "hyperlink[s]," and a "dynamically generated online application form set," but the claims were nevertheless held to be directed to the abstract idea of "retaining information in the navigation of online forms." 790 F.3d at 1345-48. Indeed, *Internet Patents Corp.* shows that claims reciting computer-related limitations may be found abstract and patent-ineligible even where the claimed essential concept or idea is technical in nature (*e.g.*, pertaining to computer networks or the Internet). 790 F.3d at 1348.

The asserted claims of the '142 patent are admittedly directed to abstract ideas relating to "post office" functionality (JA36), and the technological limitations added to the claims do nothing to change that fact.

2. Alleged novelty in a particular technological context does not make the claims less directed to an abstract idea

IV argues that the asserted claims are not directed to an abstract idea because "[t]he '142 Patent's novel approach to email screening is not a practice long prevalent in our system." OB at 50. This argument also misses its mark. Even if the '142 patent did reflect a "novel approach to email screening" (and it does not),

the issue of novelty is distinct from the issue of whether the claims are directed to an abstract idea.

In *Ultramercial*, for example, the patentee made the similar argument that the claims were directed to a technological invention "that was previously unknown and never employed on the Internet before." 772 F.3d at 714. This Court rejected that argument, holding that the patentee's 11-step method claims, which recited specific computer-based limitations, were directed to the abstract idea of offering free media in exchange for watching advertisements, and "the mere implementation of that idea on a computer does not change that fact." *Id*. The patentee further argued that the claimed method of requiring users to select advertisements constituted a novel "change from existing methods of passive advertising." *Id*. As this Court observed, "the addition of merely novel or non-routine components to the claimed idea" does not "necessarily turn[] an abstraction into something concrete." *Id*. at 715. IV's arguments regarding the '142 patent claims are not materially different from those this Court rejected in *Ultramercial*.

In short, there is nothing in the '142 patent claims to alter the fact that they are directed to the abstract idea described in the specification. Accordingly, the claims must provide an inventive concept sufficient to "transform the claimed abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2357. As step two of the *Alice* analysis shows, they do not.

B.   The '142 Patent Claims Do Not Contain Any Inventive Concept

The computer-related elements recited in the claims of the '142 patent are purely conventional and generic. Whether considered individually or in combination, they do not provide an inventive concept sufficient to transform the abstract idea into a patent-eligible application. IV's arguments to the contrary are based on misapprehensions of the law and should be rejected.

1.   **The individual claim limitations are conventional and generic**

The '142 patent specification makes clear that the technology required to perform the claims is conventional and generic. As the preamble of claim 17 states, the purported invention is directed to a "process for controlling the delivery of e-mail message [sic] in a business." JA239 at 29:40-41. The specification further acknowledges, "from a technical standpoint, post offices do employ routing rules for routing and addressing e-mail messages." JA225 at 2:45-47. The mechanism for enforcing rules, *e.g.*, the "rule enforcing post office," is "implemented as software products executing on *conventional* server-class computers . . . operat[ing] in conjunction with *conventional* operating systems." JA 229 at 9:51-58. All of the generic communications software that receives messages, applies business rules, and distributes messages to new destinations operates on a "*conventional* communications network" using "*conventional* e-mail protocols." JA227 at 5:43-67. The specification further teaches that the system

-51-

routes messages using "routing tables in a *conventional* manner" (JA227 at 6:51-55), and ultimately delivers messages using "*conventional* functionality for transferring messages" (JA227 at 6:15-24) and "*conventional* mail protocols" (JA228 at 7:4-10). The use of these conventional computer functions is not inventive.

IV concedes, as it must, that receiving email messages is a routine and conventional step performed by computers. OB at 53; *see also buySAFE*, 765 F.3d at 1355 ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.").

IV then argues, however, that the computer software modules the claims employ to control email distribution are unconventional. This argument, too, is misplaced. Storing "business rules" in a database is conventional. *See, e.g., Intellectual Ventures,* 792 F.3d at 1368. Processing messages based upon "business rules"—whether via software programmed to selectively apply the rules to the messages (the "rule engine") or via software that controls the delivery of the messages as dictated by the rule (the "distribution mechanism")—is also conventional. *Alice*, 134 S. Ct. at 2359 ("The same is true with respect to the use of a computer to obtain data, adjust account balances, and issue automated instructions; all of these computer functions are 'well-understood, routine, conventional activit[ies]' previously known to the industry."); *see also Accenture*,

728 F.3d at 1335 (finding conventional limitations such as "task library database," "event processor," and "task engine", which "are essentially a database of tasks, a means to allow a client to access those tasks, and a set of rules that are applied to that task on a given event"); *SmartGene*, 555 Fed. App'x. at 954 (finding patent ineligible a claim that "does no more than call on a 'computing device,' with basic functionality for comparing stored and input data and rules"). Combining a message with a "new distribution list" and a "rule history" merely constitutes forwarding the message along with information about why it was forwarded. All of the claimed processing is merely generic and routine and does not reflect any inventive concept. *See Internet Patents Corp.*, 790 F. 3d at 1349 ("The additional limitations of these . . . claims do not add an inventive concept, for they represent merely generic data collection steps or siting the ineligible concept in a particular technological environment.").

The technological limitations cited in the claims do not disclose any special technology for performing those functional steps. Despite the claims reciting the technical-sounding terms "rule engine" and "distribution mechanism," the '142 patent neither claims nor provides a detailed disclosure of how the computer hardware or software is implemented to perform the functions of applying rules and distributing messages other than in a purely conventional way. *See Internet Patents Corp.*, 790 F. 3d at 1349; *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333

(Fed. Cir. 2012) (finding abstract claims for which the patent "does not specify how the computer hardware and database are specially programmed to perform the steps claimed in the patent"). Such limitations, therefore, are no more than an attempt to limit the use of [the idea] to a particular technological environment." *Alice*, 134 S. Ct. at 2358 (*quoting Bilski*, 561 U.S. at 610-11). And despite IV's reference to a "quarantine" (OB at 18), the '142 patent does not use that term at all.

IV's argument that the '142 patent claim limitations are not merely routine or conventional because "[c]omputers and the Internet do not perform this detailed step unless they are performing this claim element" (OB at 54) simply amounts to the argument that, because the claims are allegedly novel, they are patent-eligible. Novelty, however, is a distinct inquiry from the §101 analysis. *Diehr*, 450 U.S. at 189-90 ("[W]hether a particular invention is novel is 'wholly apart from whether the invention falls into a category of statutory subject matter.").

As this Court found in *Ultramercial*, the addition of technical steps that had not been used in a particular context before did not necessarily confer patent-eligibility. *Ultramercial*, 772 F.3d at 716 ("That some of the eleven steps were not previously employed in this art is not enough—standing alone—to confer patent eligibility upon the claims at issue."). Indeed, even if it were true that the '142 patent disclosed a novel and non-obvious invention, that fact alone would not suffice: "groundbreaking, innovative, or even brilliant discovery does not by itself

satisfy the §101 inquiry." *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2110 (2013).

Here, there is no inventive concept in any of the individual limitations.

2.   The claim limitations as an ordered combination add nothing not already present in the individual limitations

The '142 patent claims are merely routine and conventional whether viewed individually or as an ordered combination. JA36. The district court expressly addressed IV's *DDR*-based argument that the asserted claims, when viewed as an ordered combination, override "email's conventional 'unabated delivery' paradigm." JA 041. The district court distinguished *DDR*, because unlike the claims in that case, the '142 patent claims do not disclose an invention "necessarily rooted" in computer networks or technology. *Id.*; *see also Intellectual Ventures,* 792 F.3d at 1371 ("The patent claims here do not address problems unique to the Internet, so *DDR* has no applicability."). Rather, the district court properly found that the claims "are drawn only to a generic computer implementation of an abstract idea." JA42.

As with the claims in *Alice*, the computer limitations in the '142 patent claims add nothing that is not already present when the steps are considered separately. *See Alice*, 134 S. Ct. at 2359. As an ordered combination, the claims merely describe in general terms a way to perform the abstract idea of "intercept[ing] and defer[ring] delivery of messages" on a generic computer.

JA42. This is not enough. *See Intellectual Ventures*, 792 F.3d at 1370-71 (Fed. Cir. 2015) ("Steps that do nothing more than spell out what it means to 'apply it on a computer' cannot confer patent-eligibility."). Even if the particular limitations disclosed a novel combination of steps to perform the abstract idea (and they do not), the conventional steps themselves amount to "nothing significantly more" than directions to implement the abstract idea on computers. *See Alice*, 134 S. Ct. at 2359.

3.   **IV's references to the Symantec trial are irrelevant**

IV argues that the fact that the jury at the Symantec trial did not find the '142 patent invalid over prior art is evidence that the claims "supply a 'new and useful' application of the idea and are patent-eligible." OB at 53. This argument is misplaced. The Symantec jury was not presented with argument or evidence related to patent eligibility under § 101 (JA5), and the Supreme Court has made clear that the "new and useful" inquiry of validity under §§ 102 and 103 is distinct from the §101 inquiry. As discussed above, *supra* at Section III.B.2, the Supreme Court in *Diehr* rejected the same argument IV advances here. 450 U.S. at 189-90 ("[W]hether a particular invention is novel is 'wholly apart from whether the invention falls into a category of statutory subject matter."). IV's citation to the results of the jury trial against Symantec is neither relevant nor probative.

4.   **IV's preemption argument must fail**

Finally, IV cannot show that the '142 patent claims are patent-eligible by arguing that the claims "do[] not even preempt the narrow field of email filtering using business rules, a quarantine, and administrator review." OB at 55. This argument misreads Supreme Court guidance regarding preemption. As discussed in Section III.B.3, *supra,* the Supreme Court has stated that preemption is the underlying concern that drives the analysis that excludes laws of nature, natural phenomena, and abstract ideas from patentable subject matter, but the two-step *Alice* analysis is used to address that concern. *Alice*, 134 S. Ct. at 2354. Preemption is not a distinct test for patent-eligibility. *Ariosa*, 788 F.3d at 1379. IV's preemption argument therefore must fail.

Accordingly, the claims of the '142 patent do not add any inventive concept, and do not transform the abstract idea into a patent-eligible invention.

CONCLUSION

The district court held both the '050 and '142 patents invalid for failing to meet the patent-eligibility requirements set forth in 35 U.S.C. § 101. The asserted claims of both patents are directed to abstract ideas, and neither set of claims adds an inventive concept sufficient to confer eligibility, as the district court correctly concluded. To the contrary, the '050 and '142 patent claims at issue in this appeal merely apply abstract ideas using conventional, generic computer technology,

which is insufficient to make the claims patent-eligible. Respectfully, the claims

of both patents should be held invalid, and the judgment of the district court should

be affirmed.

Dated: October 5, 2015   Respectfully submitted,

                                            /s/ Yar R. Chaikovsky
                                           Yar R. Chaikovsky

                                           Counsel for Appellees
                                           Trend Micro Incorporated and
                                           Trend Micro, Inc. (USA)

CERTIFICATE OF SERVICE

I hereby certify that on October 5, 2015, I caused the foregoing BRIEF OF APPELLEES TREND MICRO INCORPORATED AND TREND MICRO, INC. (USA) to be served by electronic means through the Court's CM/ECF system on counsel for all parties to this consolidated appeal who are registered CM/ECF users.

/s/ Yar R. Chaikovsky
Yar R. Chaikovsky

CERTIFICATE OF COMPLIANCE

I, Yar Chaikovsky, attorney for Defendants-Appellees, Trend Micro Incorporated and Trend Micro, Inc. (USA), hereby certify that BRIEF OF APPELLEES TREND MICRO INCORPORATED AND TREND MICRO, INC. (USA) filed herewith complies with the type-volume limitations prescribed by Fed. R. App. P. 32(a)(7)(B) and Fed. Cir. R. 32(b). As counted by the word processing program used to prepare it, Microsoft Word 2010 for Windows, the Brief contains 12,896 words, including headings, footnotes and quotations. This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Rule 32(a)(6). This brief has been prepared in a proportionally spaced typeface using 14-point Times New Roman.

Dated: October 5, 2015

/s/ Yar R. Chaikovsky
Yar R. Chaikovsky